

REMARKS

I. Introduction

With the addition of new claim 23, claims 7 to 13, 15 to 17, and 19 to 23 are currently pending in the present application. In view of the foregoing amendments and following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

Applicants thank the Examiner for considering the Information Disclosure Statements of December 15, 2009 and February 10, 2010, and the associated PTO-1449 papers, and cited references.

II. Rejection of Claims 7, 10, 11, 15 to 17, and 19 to 22 Under 35 U.S.C. § 103(a)

Claims 7, 10, 11, 15 to 17, and 19 to 22 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of U.S. Patent No. 6,658,564 (“the Smith reference”), U.S. Patent No. 5,860,119 (“the Dockser reference”), and U.S. Patent No. 6,076,157 (“the Borkenhagen reference”). It is respectfully submitted that the combination of the Smith, Dockser, and Borkenhagen references does not render unpatentable any of claims 7, 10, 11, 15 to 17, and 19 to 22, and the rejection should be withdrawn, for at least the following reasons.

To reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied.

First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). As clearly indicated by the Supreme Court, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *See KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). In this regard, the Supreme Court further noted that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.*, at 1741.

Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986).

Third, the prior art reference(s) must teach or suggest all of the claim features. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

As explained herein, the Office Action does satisfy these requirements of either of §§ 102 and 103 as to all of the features of the claims.

Claim 7 relates to a method of data processing using a processor including a reconfigurable field of data processing cells and a register, and, as herein amended without prejudice, recites “determining, for the reconfigurable field of data processing cells, a set of configurations of the reconfigurable field of data processing cells, with respect to at least one of a function and an interconnection of the reconfigurable field of data processing cells, with execution of which configurations the program is run; determining, for each of the configurations, a respective maximum allowed execution runtime prior to lapse of which the respective configuration is uninterruptible, and in response to lapse of which the reconfigurable field of data processing cells is reconfigured with a different configuration.”

With respect to the maximum allowed execution runtime, the Office Action refers to the Borkenhagen reference as assertedly disclosing this feature. However, the Borkenhagen reference has nothing to do with configurations, and instead refers to a forced thread switch for a thread after some time. Thus, at most, the Borkenhagen reference refers to a maximum runtime for a thread; not for a configuration.

Indeed, the Office Action refers to the Smith reference as assertedly disclosing a configuration, besides for threads. However, the mere mentioning in the Smith reference of a configuration and of a thread in no way suggests applying a maximum runtime to a configuration as with a thread in the Borkenhagen reference.

Indeed, threads are parts of a program that can be executed independently of each other, for example, in parallel, whereas configurations are of the function and/or interconnection of reconfigurable processing cells, which can then be used in their configurations for executing one or more parts of a program. Thus, there is no one-to-one correspondence of a thread to a configuration, and the reference to a forced thread switch after some time in the Borkenhagen reference in no way suggests a forced configuration switch after some time.

In the “Response to Arguments” section, the Office Action asserts that the Smith reference suggests to apply the switching mechanism of the Borkenhagen reference to

configurations because the Smith reference assertedly equates a software function to a hardware configuration and because the Smith reference assertedly suggests to apply a time-multiplexing system to configurations.

The Smith reference indicates that a function may be compiled into a software implementation and a hardware implementation, which may be alternatively selectable by an operating system at execution time depending on prevailing system demands. In other words, the configuration in the Smith reference is a hardware implementation of what would otherwise be a software function, in its entirety, and is used instead of, and is the counterpart of, the software function.

At column 8, line 66 to column 9, line 4, the Smith reference merely suggests applying a time-multiplexing system to functions. Nowhere does the Smith reference suggest applying a time-multiplexing system to configurations. While the Smith reference may provide certain configurations of hardware that provide for operation in a manner that corresponds in its entirety to a function as a whole, the time-multiplexing is ultimately provided on a function-by-function basis, and not a configuration-by-configuration basis. For example, if a configuration is usable for multiple functions, then, while the time-multiplexing may provide for interrupting a particular function, the configuration may continue to be used without reconfiguration.

Thus, the combination of the Smith and Borkenhagen references does not disclose or suggest a maximum allowed execution runtime for a configuration.

The Dockser reference does not correct the above-mentioned critical deficiencies of the Smith and Borkenhagen references.

For all of the foregoing reasons, the combination of the Smith, Dockser, and Borkenhagen references does not disclose or suggest all of the features of claim 7, and therefore does not render unpatentable claim 7 or any of its dependent claims, e.g., claims 10, 11, 15 to 17, and 19 to 22.

Withdrawal of this obviousness rejection of claims 7, 10, 11, 15 to 17, and 19 to 22 is therefore respectfully requested.

III. Rejection of Claims 8 and 9 Under 35 U.S.C. § 103(a)

Claims 8 and 9 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of the Smith, Dockser, and Borkenhagen references in further view of U.S. Patent No. 5,941,977 ("the Panwar reference"). It is respectfully submitted that the combination of Smith, Dockser, Borkenhagen, and Panwar references does not render unpatentable either of claims 8 and 9, and the rejection should be withdrawn, for at least the following reasons.

Claims 8 and 9 ultimately depend from claim 7 and are therefore allowable for at least the same reasons set forth above in support of the patentability of claim 7 since the Panwar reference does not cure the critical deficiencies noted above with respect to the combination of the Smith, Dockser, and Borkenhagen references.

Withdrawal of this obviousness rejection of claims 8 and 9 is therefore respectfully requested.

IV. Rejection of Claims 12 and 13 Under 35 U.S.C. § 103(a)

Claims 12 and 13 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of the Smith, Dockser, and Borkenhagen references, in further view of U.S. Patent No. 4,041,462 ("the Davis reference"). It is respectfully submitted that the combination of the Smith, Dockser, Borkenhagen, and Davis references does not render unpatentable either of claims 12 and 13, and the present rejection should be withdrawn, for at least the following reasons.

Claims 12 and 13 ultimately depend from claim 7 and are therefore allowable for at least the same reasons set forth above in support of the patentability of claim 7 since the Davis reference does not cure the critical deficiencies noted above with respect to the combination of the Smith, Dockser, and Borkenhagen references.

Withdrawal of this obviousness rejection of claims 12 and 13 is therefore respectfully requested.

V. New Claims 23 and 24

New claims 23 and 24 have been added. The new claims do not add new matter and are supported by the present application, including specification, as originally filed. Claims 23 and 24 include subject matter analogous to that discussed above in support of the patentability of claim 7 and are therefore allowable for at least the same reasons as claim 7.

VI. Conclusion

In light of the foregoing, it is respectfully submitted that all of the presently pending claims are in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

Respectfully submitted,

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By: /Aaron Grunberger/
Aaron Grunberger
Reg. No. 59,210

KENYON & KENYON LLP
One Broadway
New York, New York 10004
(212) 425-7200

CUSTOMER NO 26646